BRUHAT BENGALURU MAHANAGARA PALIKE

MEASUREMENT SHEET

PRE-MEASUREMENT

Name of work: Improvements and Asphalting to Roads at Thindlu, Veerabadraswamy Temple and Surrounding areas in Ward No. 09

Estimated Cost: Rs. 30.00 Lakhs

Job Code: 009-20-000084

Head of Account : P-1771 POW Works

Name of Agency: Sri B. Chandrashekar, No. 28, Anjaneyaswamy Layout, 1st Main Road, Thindlu, Vidyaranyapura (Post), Bangalore - 560 097.

Work order No: BBMP/EE/BTP/WO/27/2020-21 Dated: 23-06-2021.

	Measurements Recarded on :								
Sl No.	**Description**	**No.**	**L**	**B1**	**B2**	**Av.B**	**D**	**Qty**	**Rate**
1	Earthwork excavation by manual means in ordinary soil involving an average horizontal throw upto 2 meters and an average lift upto 0.5 m, excavated surface leveled and sides neatly dressed, the disposed earth to be leveled neatly after breaking of clods complete as per specifications.								Cum
	CC Road infront Veerabadraswamy Temple								
		1	12.50			13.55	0.18	30.49	
		1	12.60			13.45	0.15	25.42	
		1	2.10			0.85	0.15	0.27	
		1	4.20			2.20	0.15	1.39	
	For C C Drain Veerabadraswamy Temple								
	Temple W/S From Temple End	1	15.00			1.00	1.00	15.00	
		1	15.00			1.00	1.00	15.00	
		1	15.00			1.00	1.00	15.00	
		1	1.10			1.00	1.00	1.10	
		1	15.00			1.00	1.00	15.00	
		1	15.00			1.00	1.00	15.00	
		1	5.00			1.00	1.00	5.00	
		1	9.50			1.00	1.00	9.50	
	Temple E/S From Unique Florence								
		1	15.00			1.00	1.00	15.00	
		1	10.50			1.00	1.00	10.50	
		1	13.50			1.00	1.00	13.50	
		1	15.00			1.00	1.00	15.00	
		1	15.00			1.00	1.00	15.00	
		1	15.00			1.00	1.00	15.00	
		1	14.00			1.00	1.00	14.00	
		1	15.00			1.00	1.00	15.00	
		1	10.90			1.00	1.00	10.90	
	Compound Wall Temple W/S								
		1	15.00			1.00	1.00	15.00	
		1	11.20			1.00	1.00	11.20	
	VP Layout connected to Thindlu road								
		1	15.00	5.50	3.70	4.60	0.15	10.35	
		1	15.00	3.70	3.20	3.45	0.15	7.76	
		1	15.00	3.20	3.80	3.50	0.15	7.88	

324.25

Sl.	Description	No.	L	B1	B2	Av.B	D	Qty	Rate
		1	15.00	3.80	4.40	4.10	0.15	9.23	
		1	13.40	4.40	5.40	4.90	0.15	9.85	
			Total Qty =					**343.32**	
			Qty Limite to Approved Qty =					**342.81**	

Assistant Engineer
New Ward No. 11

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Sl	Description	No.	L	B1	B2	Av.B	D	Qty	Rate
	Measurements Recarded on :								
2	Providing and laying **Plain cement concrete of mix 1:3:6 with with OPC cement @ 220kgs, with crushed 40mm and down size** graded granite metal coarse aggregates @0.84cum and fine aggregates @ 0.56cum, in foundation mechanically mixed, placed in foundation and compacted by vibration including curing for 14 days complete as per specifications								Cum
	CC Road infront Veerabadraswamy Temple	1	12.50			13.55	0.15	25.41	
		1	12.60			13.45	0.15	25.42	
		1	2.10			0.85	0.15	0.27	
		1	4.20			2.20	0.15	1.39	
	For C C Drain Veerabadraswamy Temple								
	Temple W/S From Temple End	1	15.00			1.00	0.15	2.25	
		1	15.00			1.00	0.15	2.25	
		1	15.00			1.00	0.15	2.25	
		1	1.10			1.00	0.15	0.17	
		1	15.00			1.00	0.15	2.25	
		1	15.00			1.00	0.15	2.25	
		1	5.00			1.00	0.15	0.75	
		1	9.50			1.00	0.15	1.43	
	Temple E/S From Unique Florence								
		1	15.00			1.00	0.15	2.25	
		1	10.50			1.00	0.15	1.58	
		1	13.50			1.00	0.15	2.03	
		1	15.00			1.00	0.15	2.25	
		1	15.00			1.00	0.15	2.25	
		1	15.00			1.00	0.15	2.25	
		1	14.00			1.00	0.15	2.10	
		1	15.00			1.00	0.15	2.25	
		1	10.90			1.00	0.15	1.64	
	Compound Wall Temple W/S								
		1	15.00			1.00	0.15	2.25	
		1	11.20			1.00	0.15	1.68	
			Total Qty =					**88.59**	
			Qty Limite to Approved Qty =					**88.00**	

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Sl	Description	No.	L	B1	B2	Av.B	D	Qty	Rate
	Measurements Recarded on :								
3	Providing and constructing granite / trap / basalt size stone masonry in **basement with cement mortar 1:6, edges of stones** chistle dressed in courses not less than 15 cms high, bond stones at two m. apart in each course including cost of materials, labour, curing complete as per specifications.								Sqm
	Aswathkatte	1	12.45			0.60	1.00	7.47	
		1	5.80			0.60	1.00	3.48	
	Compound Wall								
	1st Course	1	15.00			0.60	0.50	4.50	
		1	11.20			0.60	0.50	3.36	
	2nd Course	1	15.00			0.45	0.45	3.04	
		1	11.20			0.45	0.45	2.27	
			Total Qty =					**24.12**	

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Sl	Description	No.	L	B1	B2	Av.B	D	Qty	Rate
	Measurements Recarded on :								
4	Providing **ruled pointing 20 mm deep** to coursed stone masonry with cement mortar 1:3, 20mm deep, after raking joints to depth of 20mm nicely lining, including cost of materials, labour, curing complete as per specifications								Sqm
	Aswathkatte	1	12.45				1.00	12.45	
		1	5.80				0.95	5.51	
			Total Qty =					**17.96**	

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Sl No.	Description	No.	L	B1	B2	Av.B	D	Qty	Rate
	Measurements Recarded on :								
5	Providing and constructing load bearing wall with solid concrete blocks of size 400x150x200 mm having block density not lessthan 1800 kg/m3 and having a minimum average compressive strength 4.00 N/mm2 confirming to IS 2185 (Part) : 2005 and constructed with CM 1:4 , as per IS 2572:2005 including cost of all materials, labour charegs, scaffolding, curing complete as per specifications.								Sqm
	Compound Wall	1	15.00				1.40	21.00	
		1	11.20				1.40	15.68	
		1	7.80				1.50	11.70	
			Total Qty =					**48.38**	

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Sl No.	Description	No.	L	B1	B2	Av.B	D	Qty	Rate
	Measurements Recarded on :								
6	Providing 18mm thick cement plaster in single coat with cement mortar 1:6, to brick masonry including rounding off corners wherever required smooth rendering, : Providing and removing scaffolding, including cost of materials, labour, curing complete as per specifications.								Sqm
	Compound Wall	2	15.00				1.45	43.50	
		2	11.20				1.45	32.48	
		2	7.80				1.60	24.96	
			Total Qty =					**100.94**	

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Sl	Description	No.	L	B1	B2	Av.B	D	Qty	Rate
	Measurements Recarded on :								
8	Providing and laying in position plain cement concrete of mix 1:2:4 with cement @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.69 cum and fine aggregtes @ 0.459cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, for coping. Including cost of all materials, labour, HOM of machinery, curing complete as per specifications.								Cum
	Coping								
	Compound Wall	1	15.00			0.45	0.10	0.68	
		1	11.20			0.45	0.10	0.50	
		1	7.80			0.45	0.10	0.35	
			Total Qty =					**1.53**	

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Sl No.	Description	No.	L	B1	B2	Av.B	D	Qty	Rate
	Measurements Recarded on :								
9	Providing laying palin / reinforced cement concrete for side drains using M 20 nominal mix concrete with OPC at 300 kgs with 20 mm and down size granite metal course aggregates at 0.69 cum and fine aggregates at 0.43 cum machine mixed well compacted for walls and bottom including cenmtering shuttering form work etc. complete as per approved drawing and design MORTH Specification No. 1500,1700,2200 Wall & Bottom thickness 15cm								Cum
	Raft								
	For C C Drain Veerabadraswamy Temple								
	Temple W/S From Temple End	1	15.00			1.00	0.15	2.25	
		1	15.00			1.00	0.15	2.25	
		1	15.00			1.00	0.15	2.25	
		1	1.10			1.00	0.15	0.17	
		1	15.00			1.00	0.15	2.25	
		1	15.00			1.00	0.15	2.25	
		1	5.00			1.00	0.15	0.75	
		1	9.50			1.00	0.15	1.43	
	Temple E/S From Unique Florence								
		1	15.00			1.00	0.15	2.25	
		1	10.50			1.00	0.15	1.58	
		1	13.50			1.00	0.15	2.03	
		1	15.00			1.00	0.15	2.25	
		1	15.00			1.00	0.15	2.25	
		1	15.00			1.00	0.15	2.25	
		1	14.00			1.00	0.15	2.10	
		1	15.00			1.00	0.15	2.25	
		1	10.90			1.00	0.15	1.64	
	Side Wall								
	Temple W/S From Temple End	2	15.00			0.15	0.55	2.48	
		2	15.00			0.15	0.55	2.48	
		2	15.00			0.15	0.55	2.48	
		2	1.10			0.15	0.55	0.18	
		2	15.00			0.15	0.55	2.48	
		2	15.00			0.15	0.50	2.25	
		2	5.00			0.15	0.45	0.68	
		2	9.50			0.15	0.45	1.28	
	Temple E/S From Unique Florence								
		2	15.00			0.15	0.55	2.48	
		2	10.50			0.15	0.57	1.80	
		2	13.50			0.15	0.58	2.35	
		2	15.00			0.15	0.60	2.70	
		2	15.00			0.15	0.60	2.70	
		2	15.00			0.15	0.60	2.70	
		2	14.00			0.15	0.58	2.44	
		2	15.00			0.15	0.58	2.61	
		2	10.90			0.15	0.60	1.96	
			Total Qty =					**68.19**	
			Qty Limite to Approved Qty =					**67.91**	

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Sl No.	Description	No.	L	B1	B2	Av.B	D	Qty	Rate
	Measurements Recarded on :								
10	Providing **T.M.T steel reinforcement for R.C.C work** including straightening, cutting, bending, hooking, placing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete as per specifications. **TMT bars Fe 500**								Tonne
	"U" Shape Drain								
		No	**Mtrs**			**Sqm**	**Kg/M**	**Kgs**	
	10 mm	513	2.20			1128.60	0.62	699.73	
	8 mm	16	46.10			737.60	0.39	287.66	
	10 mm	390	2.20			858.00	0.62	531.96	
	8 mm	17	35.00			595.00	0.39	232.05	
	10 mm	107	2.20			235.40	0.62	145.95	
	8 mm	17	9.50			161.50	0.39	62.99	
	10 mm	284	2.20			624.80	0.62	387.38	
	8 mm	17	25.50			433.50	0.39	169.07	
	10 mm	151	2.20			332.20	0.62	205.96	
	8 mm	16	13.50			216.00	0.39	84.24	
	10 mm	657	2.20			1445.40	0.62	896.15	
	8 mm	16	59.00			944.00	0.39	368.16	
								4071.29	Kgs
			Total Qty =					**4.07**	Tonnes

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Sl No.	Description	No.	L	B1	B2	Av.B	D	Qty	Rate
	Measurements Recarded on :								
13	Scarifying bituminous course 50mm to 75mm thick along with premix carpet / surface dressing by manual means without disturbing the base and stacking of the debris materials including cost of all labour charges complete as per specifications.								Sqm
	Veerabadraswamy Temple Road								
	RS	1	15.00	0.90	0.95	0.93		13.88	
		1	15.00	0.95	0.80	0.88		13.13	
		1	15.00	0.80	0.85	0.83		12.38	
		1	15.00	0.85	0.90	0.88		13.13	
		1	15.00	0.90	1.00	0.95		14.25	
		1	7.40	1.00	1.10	1.05		7.77	
	LS								
		1	15.00	0.90	0.80	0.85		12.75	
		1	15.00	0.80	1.00	0.90		13.50	
		1	15.00	1.00	0.90	0.95		14.25	
		1	15.00	0.90	0.95	0.93		13.88	
		1	15.00	0.95	1.00	0.98		14.63	
		1	7.40	1.00	0.80	0.90		6.66	
			Total Qty =					**150.18**	

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Sl	Description	No.	L	B1	B2	Av.B	D	Qty	Rate
	Measurements Recarded on :								
15	Providing and applying primer coat with S.S. bitumen emulsion on prepared surface of granular base such as WMM including cleaning of road surface and spraying primer at the rate of 0.60 kg / sqm using mechanical means complete as per specifications.								Sqm
	VP Layout connected to Thindlu road								
		1	15.00	5.50	3.70	4.60		69.00	
		1	15.00	3.70	3.20	3.45		51.75	
		1	15.00	3.20	3.80	3.50		52.50	
		1	15.00	3.80	4.40	4.10		61.50	
		1	13.40	4.40	5.40	4.90		65.66	
	Veerabadraswamy Temple Road								
	RS	1	15.00	1.20	1.10	1.15		17.25	
		1	15.00	1.10	1.20	1.15		17.25	
		1	15.00	1.20	1.20	1.20		18.00	
		1	15.00	1.20	1.20	1.20		18.00	
		1	15.00	1.20	1.10	1.15		17.25	
		1	7.40	1.10	1.20	1.15		8.51	
	LS								
		1	15.00	1.10	1.20	1.15		17.25	
		1	15.00	1.20	1.20	1.20		18.00	
		1	15.00	1.20	1.10	1.15		17.25	
		1	15.00	1.10	1.30	1.20		18.00	
		1	15.00	1.30	1.20	1.25		18.75	
		1	7.40	1.20	1.30	1.25		9.25	
			Total Qty =					**495.17**	

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Sl	Description	No.	L	B1	B2	Av.B	D	Qty	Rate
	Measurements Recarded on :								
16	KSRRB 500-11. Providing and laying **bituminous macadam** on prepared surface with crushed coarse aggregates as per design mix formula for base / binding course including loading of aggregates with F.E. loader, hot mixing of stone aggregates and bitumen in hot mix plant, transporting the mixd material in tipper to paver and laying mixed materials with paver finisher to the required level and grade, rolling by power roller to achieve the desired density, but excluding cost of primer / tack coat including lead, lift and cost of all materials, labour, HOM of machineries complete as per specifications. MORTH /Chapter 5 - using **40/60 TPH capacity H.M.P. with Mechanical paver Gr-II (50 mm to 75 mm) with 3.3 % VG-30 Bitumen**								Cum
	Veerabadraswamy Temple Road								
	RS	1	15.00	1.00	0.90	0.95	0.05	0.71	
		1	15.00	0.90	0.95	0.93	0.05	0.69	
		1	15.00	0.95	1.00	0.98	0.05	0.73	
		1	15.00	1.00	0.80	0.90	0.05	0.68	
		1	15.00	0.80	0.90	0.85	0.05	0.64	
		1	7.40	0.90	1.00	0.95	0.05	0.35	
	LS								
		1	15.00	1.00	0.90	0.95	0.05	0.71	
		1	15.00	0.90	0.95	0.93	0.05	0.69	
		1	15.00	0.95	0.90	0.93	0.05	0.69	
		1	15.00	0.90	0.80	0.85	0.05	0.64	
		1	15.00	0.80	0.95	0.88	0.05	0.66	
		1	7.40	0.95	0.90	0.93	0.05	0.34	
				Total Qty =				**7.54**	

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Sl	Description	No.	L	B1	B2	Av.B	D	Qty	Rate
	Measurements Recarded on :								
17	Cleaning the existing black topped surface with brooms, soft brushes and finally dusting with old gunny bags and / or compressed air to receive bituminous treatment including cost of all materials, labour, HOM of machineries complete as per specifications. MORTH specification clause								Sqm
	Veerabadraswamy Temple Road								
		1	15.00	10.30	6.20	8.25		123.75	
		1	15.00	6.20	6.20	6.20		93.00	
		1	15.00	6.20	7.30	6.75		101.25	
		1	15.00	7.30	7.30	7.30		109.50	
		1	15.00	7.30	7.20	7.25		108.75	
		1	7.40	7.20	7.00	7.10		52.54	
	VP Layout connected to Thindlu road								
		1	15.00	5.50	3.70	4.60		69.00	
		1	15.00	3.70	3.20	3.45		51.75	
		1	15.00	3.20	3.80	3.50		52.50	
		1	15.00	3.80	4.40	4.10		61.50	
		1	13.40	4.40	5.40	4.90		65.66	
			Total Qty =					**889.20**	

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